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EXAMINER	
CURS, NATHAN M	

ART UNIT	PAPER NUMBER
2613	

NOTIFICATION DATE	DELIVERY MODE
11/07/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/734,629	KOOPFERSTOCK, ERIC S.	
	Examiner	Art Unit	
	NATHAN M. CURS	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-13,15 and 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-13,15 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5, 7, 9-13, 15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshizawa et al. ("Yoshizawa") (European Patent Office Publication No. 1096713) in view of Sugawara et al. ("Sugawara") (US Patent Application Publication No. 2002/0044315) and further in view of Lichtman et al. ("Lichtman") (US Patent Application Publication No. 2006/0210274) and Emery et al. ("Emery") (US Patent Application Publication No. 2002/0191241).

Regarding claim 1, Yoshizawa discloses a method for communicating optical traffic at a node (fig. 2A and paragraphs 0006-0009), comprising: receiving optical traffic on a network and demultiplexing the optical traffic into component signals of the optical traffic (fig. 2A, element 40); splitting at least one of the component signals into a drop signal and a continue signal (fig. 2A, element 41); receiving and recovering the drop signal (fig. 2A, element 49); selecting between an add signal and the continue signal for communication on the network (fig. 2A, element 42); and multiplexing the selected signal with other signals for communication on the network (fig. 2A, element 43). Yoshizawa does not disclose splitting the drop signal into a first drop signal and a

second drop signal, and receiving the first drop signal at a work receiver and receiving the second drop signal at a protect receiver. Sugawara discloses a WDM add/drop node where a drop signal is split, with one of the split signals provided to a service tributary and the other provided to a protect tributary (fig. 32 and paragraphs 0312 and 0318-0322). It would have been obvious to one of ordinary skill in the art at the time of the invention to split the drop signal of Yoshizawa to working and protect receivers, to provide the benefit of adding protection in the event of a failure of a receiver. Yoshizawa discloses two separate drop and add elements in the figure for the claimed drop-splitting and add-selecting (fig. 2A, elements 41 and 42 respectively), but does not explicitly disclose that the drop-splitting element and the add-splitting element of the figure are realized as separate drop and add cards. Lichtman discloses an optical network with OADM where separate add and drop elements are implements as "modules" physically connected together (abstract) and Emery discloses an optical network with an OADM and defines a "module" as a card-pack equipped with optical modules to provide a specific functionality (fig. 1 and paragraphs 0047 and 0048). Since Yoshizawa discloses separate drop and add elements, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the separate drop and add elements on separate card-pack "modules", in light of Lichtman and Emery, to provide the benefits of being able to consolidate the functionalities of the different elements onto respectively removable and replaceable modularized cards.

Regarding claim 2, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the method of claim 1, wherein demultiplexing the optical traffic into

component signals comprises demultiplexing the optical traffic into component wavelengths (Yoshizawa: fig. 2A, element 40).

Regarding claim 3, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the method of claim 2, but does not disclose that the number of demultiplexed wavelengths is approximately forty. However, Yoshizawa discloses the system is a dense WDM system (paragraph 0001), and the office takes official notice that DWDM systems are well known to have high numbers of wavelengths. It would have been obvious to one of ordinary skill in the art at the time of the invention that a DWDM system would have approximately forty wavelengths, to provide the benefit of utilizing many wavelengths for multiplexed communication.

Regarding claim 4, the combination of Yoshizawa, Sugawara, Lichtman and Emery the method of claim 1, wherein: means for demultiplexing the optical traffic comprises means for demultiplexing the optical traffic (Yoshizawa: fig. 2A, element 40); but the combination as described above does not disclose that the demultiplexing of the optical traffic happens at the drop card. However, Emery discloses that one card-pack module can be equipped with plural optical modules (paragraph 0048). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to mount the disclosed demultiplexer and drop splitter on a same card-pack in the system of Yoshikawa, to provide the advantages of further consolidating the functionalities of different elements onto respectively removable and replaceable modularized cards.

Regarding claim 5, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the method of claim 4, wherein the splitter is operable to split at least

one of the component signals into a drop signal and a continue signal on the drop card using array waveguide technology or thin film filters (Yoshizawa: paragraph 0007, as applicable in the combination).

Regarding claim 7, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the method of claim 1, wherein selecting between an add signal and the continue signal comprises selecting between an add signal and the continue signal at a 2.times.1 switch (Yoshizawa: fig. 2A, element 42).

Regarding claim 9, Yoshizawa discloses a system for communicating optical traffic at a node (fig. 2A and paragraphs 0006-0009), comprising: a node operable to receive optical traffic on a network (fig. 2A): a demultiplexer operable to demultiplex the optical traffic received at the node into component signals of the optical traffic (fig. 2A, element 40); a splitter coupled to the demultiplexer, the splitter operable to split at least one of the component signals into a drop signal and a continue signal (fig. 2A, element 41); a receiver coupled to the splitter, the receiver operable to receive and recover the drop signal (fig. 2A, element 49); a switch coupled to the splitter, the switch operable to select between an add signal and the continue signal for communication on the network (fig. 2A, element 42); and a multiplexer coupled to the switch, the multiplexer operable to multiplex the selected signal with other signals for communication on the network (fig. 2A, element 43). Yoshizawa does not disclose a second splitter coupled to the splitter, the second splitter operable to split the drop signal into a first drop signal and a second drop signal, and a work receiver couple to the second splitter operable to receive the first drop signal, and a protect receiver coupled to the second splitter, the protect

receiver operable to receive the second drop signal. Sugawara discloses a WDM add/drop node where a drop signal is split, with one of the split signals provided to a service tributary and the other provided to a protect tributary (fig. 32 and paragraphs 0312 and 0318-0322). It would have been obvious to one of ordinary skill in the art at the time of the invention to split the drop signal of Yoshizawa to working and protect receivers, to provide the benefit of adding protection in the event of a failure of a receiver. Yoshizawa discloses two separate drop and add elements in the figure for the claimed drop-splitting and add-selecting (fig. 2A, elements 41 and 42 respectively), but does not explicitly disclose that the drop-splitting element and the add-splitting element of the figure are realized as separate drop and add cards. Lichtman discloses an optical network with OADM where separate add and drop elements are implements as "modules" physically connected together (abstract) and Emery discloses an optical network with an OADM and defines a "module" as a card-pack equipped with optical modules to provide a specific functionality (fig. 1 and paragraphs 0047 and 0048). Since Yoshizawa discloses separate drop and add elements, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the separate drop and add elements on separate card-pack "modules", in light of Lichtman and Emery, to provide the benefits of being able to consolidate the functionalities of the different elements onto respectively removable and replaceable modularized cards.

Regarding claim 10, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the system of claim 9, wherein a demultiplexer operable to demultiplex the optical traffic into component signals comprises a demultiplexer operable to

demultiplex the optical traffic into component wavelengths (Yoshizawa: fig. 2A, element 40).

Regarding claim 11, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the system of claim 10, but does not disclose that the number of demultiplexed wavelengths is approximately forty. However, Yoshizawa discloses the system is a dense WDM system (paragraph 0001), and the office takes official notice that DWDM systems are well known to have high numbers of wavelengths. It would have been obvious to one of ordinary skill in the art at the time of the invention that a DWDM system would have approximately forty wavelengths, to provide the benefit of utilizing many wavelengths for multiplexed communication.

Regarding claim 12, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the system of claim 9, but the combination as described above for claim 9 does not disclose that the demultiplexer and the splitter are both positioned on the drop card. However, Emery discloses that one card-pack module can be equipped with plural optical modules (paragraph 0048). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to mount the disclosed demultiplexer and drop splitter on a same card-pack in the system of Yoshikawa, to provide the advantages of further consolidating the functionalities of different elements onto respectively removable and replaceable modularized cards.

Regarding claim 13, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the system of claim 12, wherein the splitter is operable to split at least one of the component signals into a drop signal and a continue signal on the drop card

using array waveguide technology or thin film filters (Yoshizawa: paragraph 0007, as applicable in the combination).

Regarding claim 15, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the system of claim 9, the switch comprises a 2.times.1 switch (Yoshizawa: fig. 2A, element 42).

Regarding claim 17, Yoshizawa discloses a system for communicating optical traffic at a node (fig. 2A and paragraphs 0006-0009), comprising: means for receiving optical traffic on a network (fig. 2A); means for demultiplexing the optical traffic into component signals of the optical traffic (fig. 2A, element 40); means for splitting at least one of the component signals into a drop signal and a continue signal (fig. 2A, element 41); means for receiving and recovering the drop signal (fig. 2A, element 49); means for selecting between an add signal and the continue signal for communication on the network (fig. 2A, element 42); and means for multiplexing the selected signal with other signals for communication on the network (fig. 2A, element 43). Yoshizawa does not disclose means for splitting the drop signal into a first drop signal and a second drop signal, and means for receiving the first drop signal at a work receiver and means for receiving the second drop signal at a protect receiver. Sugawara discloses a WDM add/drop node where a drop signal is split, with one of the split signals provided to a service tributary and the other provided to a protect tributary (fig. 32 and paragraphs 0312 and 0318-0322). It would have been obvious to one of ordinary skill in the art at the time of the invention to split the drop signal of Yoshizawa to working and protect receivers, to provide the benefit of adding protection in the event of a failure of a

receiver. Yoshizawa discloses two separate drop and add elements in the figure for the claimed drop-splitting and add-selecting (fig. 2A, elements 41 and 42 respectively), but does not explicitly disclose that the drop-splitting element and the add-splitting element of the figure are realized as separate drop and add cards. Lichtman discloses an optical network with OADM where separate add and drop elements are implements as "modules" physically connected together (abstract) and Emery discloses an optical network with an OADM and defines a "module" as a card-pack equipped with optical modules to provide a specific functionality (fig. 1 and paragraphs 0047 and 0048). Since Yoshizawa discloses separate drop and add elements, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the separate drop and add elements on separate card-pack "modules", in light of Lichtman and Emery, to provide the benefits of being able to consolidate the functionalities of the different elements onto respectively removable and replaceable modularized cards.

Regarding claim 18, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the system of claim 17, wherein means for demultiplexing the optical traffic into component signals comprises means for demultiplexing the optical traffic into component wavelengths (Yoshizawa: fig. 2A, element 40).

Regarding claim 19, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the system of claim 17, wherein: means for demultiplexing the optical traffic comprises means for demultiplexing the optical traffic (Yoshizawa: fig. 2A, element 40); but the combination as described above for claim 17 does not disclose that the means for demultiplexing the optical traffic is at the drop card. However, Emery

discloses that one card-pack module can be equipped with plural optical modules (paragraph 0048). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to mount the disclosed demultiplexer and drop splitter on a same card-pack in the system of Yoshikawa, to provide the advantages of further consolidating the functionalities of different elements onto respectively removable and replaceable modularized cards.

3. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshizawa (European Patent Office Publication No. 1096713) in view of Sugawara (US Patent Application Publication No. 2002/0044315) and further in view of Lichtman (US Patent Application Publication No. 2006/0210274) and Emery (US Patent Application Publication No. 2002/0191241), as applied to claims 1-5, 7, 9-13, 15, and 17-19 above, and further in view of Antoniades et a. ("Antoniades") (US Patent Application Publication No. 2002/0048066).

Regarding claim 8, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the method of claim 1, but does not disclose tapping an optical supervisory signal from the optical traffic. Antoniades discloses an add/drop WDM system similar to that of Yoshizawa, where the node comprises a tap operable to tap an optical supervisory signal from the optical traffic (fig. 3 and paragraph 0017 and 0018). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a WDM-based OSC signal for the system of the combination, to provide the

benefit of having control, messaging and alarming between nodes, as taught by Antoniades.

Regarding claim 16, the combination of Yoshizawa, Sugawara, Lichtman and Emery discloses the system of claim 9, but does not disclose that the node comprises a tap operable to tap an optical supervisory signal from the optical traffic. Antoniades discloses an add/drop WDM system similar to that of Yoshizawa, where the node comprises a tap operable to tap an optical supervisory signal from the optical traffic (fig. 3 and paragraph 0017 and 0018). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a WDM-based OSC signal in the system of the combination, to provide the benefit of having control, messaging and alarming between nodes, as taught by Antoniades.

Response to Arguments

4. Applicant's arguments filed 6 August 2008 have been fully considered but they are not persuasive.

The Applicant argues that the cited portions of Yoshizawa "disclose functionality in a single add/drop multiplexer (OADM)" as opposed to implement the drop and add functionalities onto separate "cards". However, this argument is not persuasive in light of the combination above when considering that the Applicant's support for separate drop and add cards in the specification merely amounts to separate *internal* components within a larger OADM node. Thus, from the node-level perspective, both the Applicant's disclosure and Yoshizawa have separate drop and add elements within

a single OADM node. And while it is true that Yoshizawa by himself doesn't disclose these separate elements as separate "cards", it nevertheless would have been obvious to one of ordinary skill in the art at the time of the invention to implement the separate drop and add elements in Yoshizawa as card-packs, as described above for the combination.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN M. CURS whose telephone number is (571)272-3028. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NATHAN M CURS/

Examiner, Art Unit 2613